

AMENDMENTS

Please amend the claims as follows:

1. (currently amended) A graphics processing unit system for diagnostic medical ultrasound imaging, the system comprising:

a graphics processing unit having an input, at least one of a vertex processor and a fragment processor, and at least one output, the graphics processing unit operable to process first ultrasound data from the input; and

a processor connected with the at least one output, the processor operable to process second ultrasound data output on the at least one output of the graphics processing unit;

further comprising an ultrasound data path beginning at a beamformer and ending at a display wherein the graphics processing unit implements at least a part of a first ultrasound process selected from the group of: receive beamformation, scan conversion, motion detection and combinations thereof and the processor implements at least a part of a second ultrasound process selected from the group of: detection, motion tracking, filtering, scan conversion, and combinations thereof.

2. (original) The system of Claim 1 wherein the graphics processing unit comprises the fragment processor responsive to an output of the vertex processor.

3. (original) The system of Claim 2 wherein the at least one output is downstream from the vertex processor and upstream from the fragment processor.

4. (original) The system of Claim 2 wherein the at least one output is downstream from the vertex processor and the fragment processor.

5. (original) The system of Claim 1 wherein the at least one output comprises at least two outputs, a first one of the at least two outputs connected with the processor and a second one of the at least two outputs connected with a display.

6. (original) The system of Claim 1 wherein the processor comprises an image processor.

7. (cancelled)
8. (original) The system of Claim 2 wherein the vertex processor is operable to perform a scan conversion operation.
9. (original) The system of Claim 2 wherein the fragment processor is operable to perform one of: a Fourier transform and a non-linear scan conversion operation.
10. (currently amended) A method for diagnostic medical ultrasound imaging with a graphic processing unit, the method comprising:
 - (a) processing first ultrasound data with one of a vertex processor and a fragment processor of a graphics processing unit;
 - (b) processing second ultrasound data output from the graphics processing unit with a different processor connected to the graphics processing unit prior to generating a display responsive to the first ultrasound data; and
 - (c) generating a display responsive to the second ultrasound data;wherein (a) comprises performing at least a part of a first ultrasound process selected from the group of: receive beamformation, scan conversion, motion detection and combinations thereof and wherein (b) comprises performing at least a part of a second ultrasound process selected from the group of: detection, motion tracking, filtering, scan conversion, and combinations thereof.
11. (original) The method of Claim 10 wherein (b) comprises image processing the second ultrasound data.
12. (cancelled)
13. (original) The method of Claim 10 wherein (a) comprises performing a scan conversion operation with the vertex processor.

14. (original) The method of Claim 10 where in (a) comprises performing a scan conversion operation with the fragment processor.

15. (original) The method of Claim 10 wherein (a) comprises performing one of: a Fourier transform and a non-linear scan conversion operation with the fragment processor.

16-34. (cancelled)